



STIC Search Report

EIC 1700

STIC Database Tracking Number: 148855

**TO: Duc Truong
Location: 10D71
Art Unit : 1711
April 12, 2005**

Case Serial Number: 10779483

**From: Les Henderson
Location: EIC 1700
REM 4B28 / 4A30
Phone: 571-272-2538**

Leslie.henderson@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Dr. W. Z. D. C. Examiner #: 69332 Date: 3/24/05
 Art Unit: 1711 Phone Number 30 2-181 Serial Number: 6779, 483
 Mail Box and Bldg/Room Location: 6071 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

*Product of claim 43 derived from the process of claim 46.
 Charles*

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>244</u>	NA Sequence (#) _____	STN <u>\$ 609.04</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>3</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>4/12/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>60</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: <u>30</u>	Patent Family _____	WWW/Internet _____
Online Time: <u>180</u>	Other _____	Other (specify) _____

=> d his

(FILE 'HOME' ENTERED AT 13:46:47 ON 12 APR 2005)

FILE 'HCAPLUS' ENTERED AT 13:46:59 ON 12 APR 2005

E US20040225153/PN

L1 1 S US20040225153/PN

SEL L1 RN

FILE 'REGISTRY' ENTERED AT 13:48:07 ON 12 APR 2005

L2 30 S E1-E30

E PHOSPHAZENE/PCT

E PHOSPHAZENE/CI

E PHOSPHAZENE/CN

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L3 STR

FILE 'REGISTRY' ENTERED AT 14:07:50 ON 12 APR 2005

L4 50 S L3

L5 SCR 2043

L6 30 S L5 AND L3

FILE 'LREGISTRY' ENTERED AT 15:10:06 ON 12 APR 2005

L7 STR L3

L8 STR

FILE 'REGISTRY' ENTERED AT 15:19:09 ON 12 APR 2005

L9 50 S L7

L10 1 S L8

L11 0 S L7 AND L8

FILE 'LREGISTRY' ENTERED AT 15:23:49 ON 12 APR 2005

L12 STR L8

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L13 1 S L12

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L14 0 S L7 AND L12

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L15 STR L8

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L17 STR L15

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L18 9 S L17

L19 0 S L7 AND L17

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L20 STR L17

L21 STR L8

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 L23 0 S L21 AND L7
 L24 9 S L20
 L25 0 S L7 AND L20

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 L29 STR L15

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 L31 13 S L27

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 L34 0 S L7 AND L32

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 L35 STR L32

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 SAV L38 TRU483/A
 L39 72232 S L7 FUL
 SAV TEMP L39 TRU483A/A
 L40 0 S L7 AND L35
 L41 0 S L7 AND L35 FUL

FILE 'HCAPLUS' ENTERED AT 16:24:25 ON 12 APR 2005
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 L43 38803 S L39
 L44 6 S L42 AND L43
 L45 1 S L1 AND L44
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 L7 STR

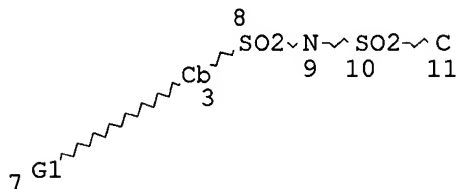
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 CONNECT IS E2 RC AT 2
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L35 STR



VAR G1=O/NH
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 47 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

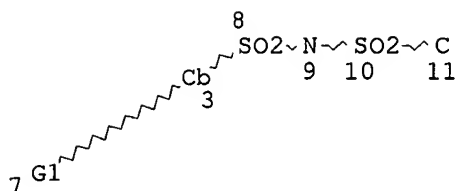
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L7 STR

P~N
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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L35 STR



VAR G1=O/NH
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 DEFAULT ECLEVEL IS LIMITED
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STEREO ATTRIBUTES: NONE
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 L39 72232 SEA FILE=REGISTRY SSS FUL L7
 L42 372 SEA FILE=HCAPLUS ABB=ON PLU=ON L38
 L43 38803 SEA FILE=HCAPLUS ABB=ON PLU=ON L39
 L44 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L43

=> d l44 1-6 ibib hitstr hitind

L44 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:696406 HCAPLUS
 DOCUMENT NUMBER: 141:207673
 TITLE: Synthesis of polyphosphazenes with sulfonimide
 side groups, blends, membranes, and their use in
 fuel cells
 INVENTOR(S): Hofmann, Michael A.; Allcock, Harry R.; Ambler,
 Catherine M.; Maher, Andrew E.; Wood, Richard
 M.; Welna, Daniel T.
 PATENT ASSIGNEE(S): The Penn State Research Foundation, USA
 SOURCE: PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072141	A2	20040826	WO 2004-US4316	20040213

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB,
 BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO,
 CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE,
 EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU,
 HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR,
 KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD,

MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,
 BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
 CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG,
 CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004225153 A1 20041111 US 2004-779483

200402
13

PRIORITY APPLN. INFO.:

US 2003-450178P

P

200302
13

OTHER SOURCE(S): MARPAT 141:207673

IT **457101-93-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (intermediate; polyphosphazenes with phenoxy sulfonyl side
 groups for use in fuel cells)

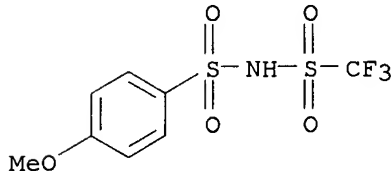
RN 457101-93-8 HCAPLUS

CN Benzenesulfonamide, 4-methoxy-N-[(trifluoromethyl)sulfonyl]-, compd.
 with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 457101-92-7

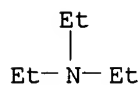
CMF C8 H8 F3 N O5 S2



CM 2

CRN 121-44-8

CMF C6 H15 N



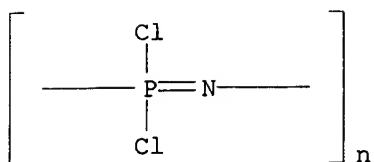
IT **26085-02-9DP**, Poly(dichlorophosphazene), reaction products
 with phenoxy trifluoromethanesulfonyl **457101-95-0DP**,
 reaction products with poly(dichlorophosphazene)

RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)

(polyphosphazenes with phenoxy sulfonyl side groups for use in
 fuel cells)

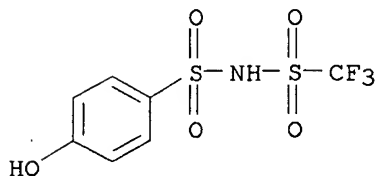
RN 26085-02-9 HCAPLUS

CN Poly[nitrilo(dichlorophosphoranylidene)] (8CI, 9CI) (CA INDEX NAME)



RN 457101-95-0 HCAPLUS

CN Benzenesulfonamide, 4-hydroxy-N-[(trifluoromethyl)sulfonyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

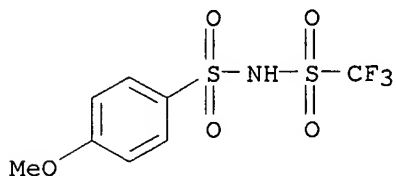
IT 457101-94-9P 743478-17-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)

(polyphosphazenes with phenoxy sulfonimide side groups for use in fuel cells)

RN 457101-94-9 HCAPLUS

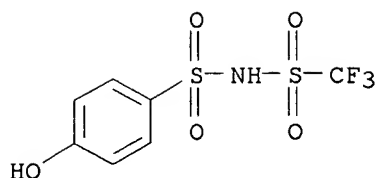
CN Benzenesulfonamide, 4-methoxy-N-[(trifluoromethyl)sulfonyl]-, sodium salt (9CI) (CA INDEX NAME)



● Na

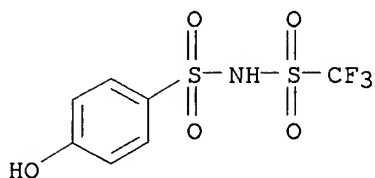
RN 743478-17-3 HCAPLUS

CN Benzenesulfonamide, 4-hydroxy-N-[(trifluoromethyl)sulfonyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C08G
 CC 35-6 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 52
 IT **457101-93-8P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (intermediate; polyphosphazenes with phenoxy sulfonimide side
 groups for use in fuel cells)
 IT **26085-02-9DP**, Poly(dichlorophosphazene), reaction products
 with phenoxy trifluoromethanesulfonimide **457101-95-0DP**,
 reaction products with poly(dichlorophosphazene)
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (polyphosphazenes with phenoxy sulfonimide side groups for use in
 fuel cells)
 IT **457101-94-9P 743478-17-3P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (polyphosphazenes with phenoxy sulfonimide side groups for use in
 fuel cells)
 L44 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:670193 HCAPLUS
 DOCUMENT NUMBER: 141:368255
 TITLE: Control of water uptake of polyphosphazene based
 fuel cell membranes by silicate
 inter-penetrating networks
 AUTHOR(S): Wood, Richard M.; Allcock, Harry R.
 CORPORATE SOURCE: Department of Chemistry, The Pennsylvania State
 University, University Park, PA, 16802, USA
 SOURCE: Polymeric Materials: Science and Engineering
 (2004), 91, 683-684
 CODEN: PMSEDG; ISSN: 0743-0515
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal; (computer optical disk)
 LANGUAGE: English
 IT **743478-17-3**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (control of water uptake of polyphosphazene based fuel cell
 membranes by silicate inter-penetrating networks)
 RN 743478-17-3 HCAPLUS
 CN Benzenesulfonamide, 4-hydroxy-N-[(trifluoromethyl)sulfonyl]-,
 monosodium salt (9CI) (CA INDEX NAME)

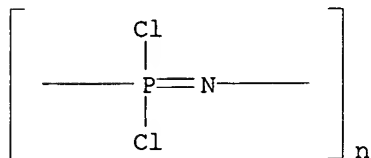


● Na

IT **26085-02-9DP**, Poly(dichlorophosphazene), reaction product with sodium 4-methylphenoxide and sodium sulfonimide phenolate, and interpenetrating polymer networks via subsequent reaction product with 3,3,3-trifluoropropyltrimethoxy silane, crosslinked
 RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (interpenetrating network composite; control of water uptake of polyphosphazene based fuel cell membranes by silicate inter-penetrating networks)

RN 26085-02-9 HCAPLUS

CN Poly[nitrilo(dichlorophosphoranylidene)] (8CI, 9CI) (CA INDEX NAME)



CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
 Section cross-reference(s): 35, 38, 49

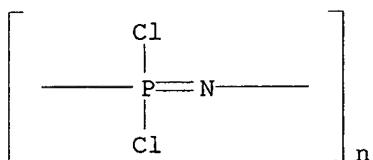
IT 429-60-7, 3,3,3-Trifluoropropyltrimethoxy silane 1121-70-6D, Sodium 4-methylphenoxide, reaction product with poly(dichlorophosphazene) 7647-01-0, Hydrochloric acid, reactions **743478-17-3**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (control of water uptake of polyphosphazene based fuel cell membranes by silicate inter-penetrating networks)

IT **26085-02-9DP**, Poly(dichlorophosphazene), reaction product with sodium 4-methylphenoxide and sodium sulfonimide phenolate, and interpenetrating polymer networks via subsequent reaction product with 3,3,3-trifluoropropyltrimethoxy silane, crosslinked
 RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (interpenetrating network composite; control of water uptake of polyphosphazene based fuel cell membranes by silicate inter-penetrating networks)

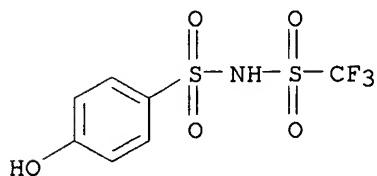
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:666841 HCAPLUS
 DOCUMENT NUMBER: 139:352600
 TITLE: Novel proton conductive polyphosphazenes for use as fuel cell materials
 AUTHOR(S): Ambler, Catherine M.; Maher, Andrew E.; Wood, Richard M.; Allcock, Harry R.; Chalkova, Elena; Lvov, Serguei N.
 CORPORATE SOURCE: Department of Chemistry, State College, The Pennsylvania State University, PA, 16802, USA
 SOURCE: Polymeric Materials Science and Engineering (2003), 89, 595
 CODEN: PMSEDG; ISSN: 0743-0515
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal; (computer optical disk)
 LANGUAGE: English
 IT **26085-02-9DP**, Poly(dichlorophosphazene), reaction product with sodium 4-methylphenoxide and sodium sulfonimide phenolate
457101-95-0DP, reaction product with poly(dichlorophosphazene)
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (novel proton conductive polyphosphazenes for use as fuel cell materials)
 RN 26085-02-9 HCAPLUS
 CN Poly[nitrilo(dichlorophosphoranylidene)] (8CI, 9CI) (CA INDEX NAME)



RN 457101-95-0 HCAPLUS
 CN Benzenesulfonamide, 4-hydroxy-N-[(trifluoromethyl)sulfonyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
 Section cross-reference(s): 35, 38, 76
 IT 1121-70-6DP, Sodium 4-methylphenoxide, reaction product with poly(dichlorophosphazene) **26085-02-9DP**,
 Poly(dichlorophosphazene), reaction product with sodium 4-methylphenoxide and sodium sulfonimide phenolate

457101-95-ODP, reaction product with
poly(dichlorophosphazene)

RL: DEV (Device component use); POF (Polymer in formulation); PRP
(Properties); SPN (Synthetic preparation); PREP (Preparation); USES
(Uses)

(novel proton conductive polyphosphazenes for use as fuel cell
materials)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L44 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:531846 HCAPLUS

DOCUMENT NUMBER: 137:217352

TITLE: Synthesis of Polyphosphazenes with Sulfonimide
Side Groups

AUTHOR(S): Hofmann, Michael A.; Ambler, Catherine M.;
Maher, Andrew E.; Chalkova, Elena; Zhou,
Xiangyang Y.; Lvov, Serguei N.; Allcock, Harry
R.

CORPORATE SOURCE: The Energy Institute, Department of Chemistry,
Pennsylvania State University, University Park,
PA, 16802, USA

SOURCE: Macromolecules (2002), 35(17), 6490-6493
CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

IT **457101-93-8P 457101-94-9P 457101-96-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT (Reactant or reagent)

(in prepn and property of polyphosphazenes with sulfonimide side
groups)

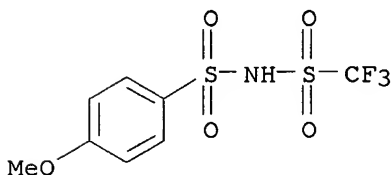
RN 457101-93-8 HCAPLUS

CN Benzenesulfonamide, 4-methoxy-N-[(trifluoromethyl)sulfonyl]-, compd.
with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 457101-92-7

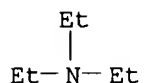
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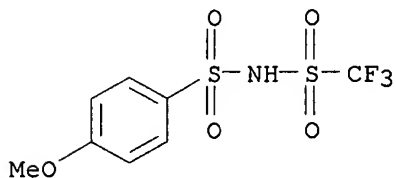
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CRN 121-44-8

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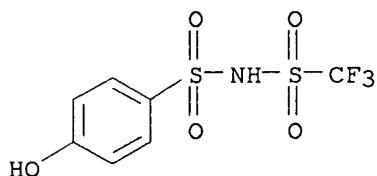


RN 457101-94-9 HCAPLUS
CN Benzenesulfonamide, 4-methoxy-N-[(trifluoromethyl)sulfonyl]-, sodium salt (9CI) (CA INDEX NAME)

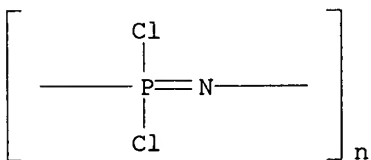


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RN 457101-96-1 HCAPLUS
CN Benzenesulfonamide, 4-hydroxy-N-[(trifluoromethyl)sulfonyl]- (9CI)
(CA INDEX NAME)

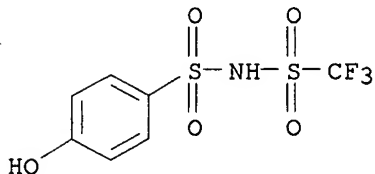


IT **26085-02-9DP**, Poly(dichlorophosphazene), reaction product with sodium 4-methylphenoxide and sodium sulfonimide phenolate
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn and property of polyphosphazenes with sulfonimide side groups)
RN 26085-02-9 HCAPLUS
CN Poly[nitrilo(dichlorophosphoranylidene)] (8CI, 9CI) (CA INDEX NAME)



IT **457101-95-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn and property of polyphosphazenes with sulfonimide side groups)

groups)
 RN 457101-95-0 HCAPLUS
 CN Benzenesulfonamide, 4-hydroxy-N-[(trifluoromethyl)sulfonyl]-,
 disodium salt (9CI) (CA INDEX NAME)



●2 Na

CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 36, 38
 IT **457101-93-8P 457101-94-9P 457101-96-1P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (in prepn and property of polyphosphazenes with sulfonimide side
 groups)
 IT 1121-70-6DP, Sodium 4-methylphenoxide, reaction product with
 poly(dichlorophosphazene) **26085-02-9DP**,
 Poly(dichlorophosphazene), reaction product with sodium
 4-methylphenoxide and sodium sulfonimide phenolate
 RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic
 preparation); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
 (prepn and property of polyphosphazenes with sulfonimide side
 groups)
 IT **457101-95-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (prepn and property of polyphosphazenes with sulfonimide side
 groups)
 REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L44 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1974:151132 HCAPLUS
 DOCUMENT NUMBER: 80:151132
 TITLE: Photographic gelatin-containing layers with
 improved physical and photographic properties
 INVENTOR(S): Himmelmann, Wolfgang; Balle, Gerhard; Nittel,
 Fritz; Saleck, Wilhelm
 PATENT ASSIGNEE(S): Agfa-Gevaert A.-G.
 SOURCE: Ger. Offen., 26 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2219004	A1	19731108	DE 1972-2219004	197204 19
DE 2219004	C2	19840202		
BE 798111	A2	19731012	BE 1973-1004962	197304 12
US 3967966	A	19760706	US 1973-351850	197304 17
CA 1021186	A1	19771122	CA 1973-168930	197304 17
IT 980265	A	19740930	IT 1973-49519	197304 18
CH 585918	A	19770315	CH 1973-5628	197304 18
FR 2181027	A1	19731130	FR 1973-14432	197304 19
JP 49021133	A2	19740225	JP 1973-43712	197304 19
GB 1406752	A	19750917	GB 1973-18956	197304 19
PRIORITY APPLN. INFO.:		DE 1972-2219004	A	197204 19

IT 52382-61-3 52470-49-2 52679-46-6

RL: USES (Uses)

(photog. silver halide emulsion plasticizer)

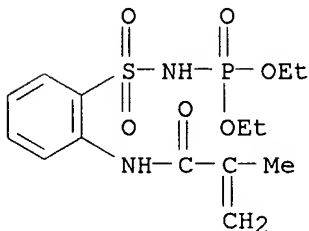
RN 52382-61-3 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with diethyl
 [[2-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]sulfonyl]phosphoramidat
 e (9CI) (CA INDEX NAME)

CM 1

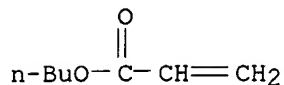
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CMF C14 H21 N2 O6 P S



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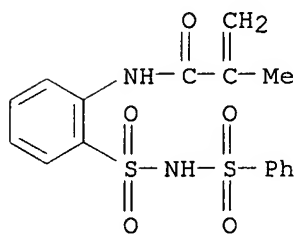
CRN 141-32-2
CMF C7 H12 O2



RN 52470-49-2 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with 2-methyl-N-[2-
[[(phenylsulfonyl) amino] sulfonyl] phenyl]-2-propenamide (9CI) (CA
INDEX NAME)

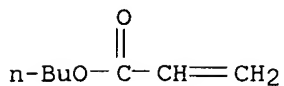
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CRN 52470-48-1
CMF C16 H16 N2 O5 S2



CM 2

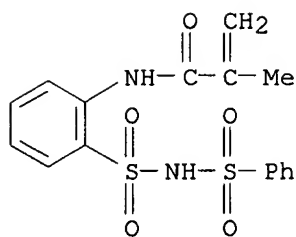
CRN 141-32-2
CMF C7 H12 O2



RN 52679-46-6 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethyl 2-propenoate and
2-methyl-N-[2-[[(phenylsulfonyl) amino] sulfonyl] phenyl]-2-propenamide
(9CI) (CA INDEX NAME)

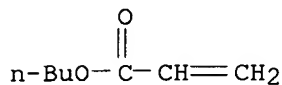
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CRN 52470-48-1
CMF C16 H16 N2 O5 S2



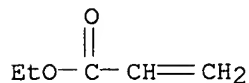
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 140-88-5
CMF C5 H8 O2



IC G03C
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT **52382-61-3 52470-49-2 52679-46-6**
RL: USES (Uses)
(photog. silver halide emulsion plasticizer)

L44 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1963:26965 HCAPLUS

DOCUMENT NUMBER: 58:26965

ORIGINAL REFERENCE NO.: 58:4456h,4457a-b

TITLE: Reaction of diaryldisulfonyl imides with phosphorus pentachloride

AUTHOR(S): Levchenko, E. S.; Derkach, N. Ya.; Kirsanov, A. V.

CORPORATE SOURCE: Inst. Org. Chem., Kiev

SOURCE: Zhurnal Obshchei Khimii (1962), 32, 1212-18

CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

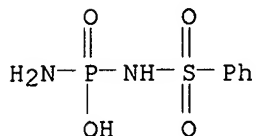
LANGUAGE: Unavailable

IT **89711-96-6**, Phosphorodiamidic acid, (phenylsulfonyl)-
90090-66-7, Phosphoramidic acid, [(p-nitrophenyl)sulfonyl]-,
dimethyl ester **90648-11-6**, Phosphorimidic acid,
[(p-nitrophenyl)sulfonyl]-, trimethyl ester **91114-21-5**,

Phosphorodiamidic acid, [(p-chlorophenyl)sulfonyl]-
92303-41-8, Phosphorodiamidic acid, (p-tolylsulfonyl)-
96433-16-8, Dibenzenesulfonamide, 4-methoxy-4'-nitro-
 (preparation of)

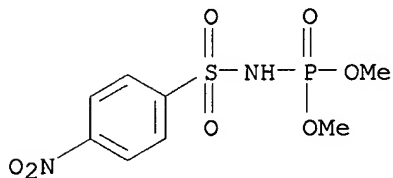
RN 89711-96-6 HCAPLUS

CN Phosphorodiamidic acid, (phenylsulfonyl)- (7CI) (CA INDEX NAME)



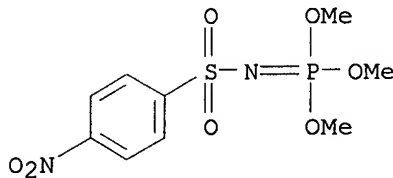
RN 90090-66-7 HCAPLUS

CN Phosphoramidic acid, [(p-nitrophenyl)sulfonyl]-, dimethyl ester
 (6CI, 7CI) (CA INDEX NAME)



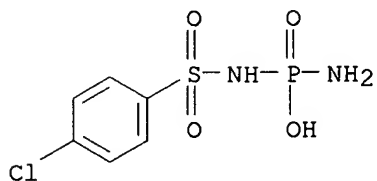
RN 90648-11-6 HCAPLUS

CN Phosphorimidic acid, [(p-nitrophenyl)sulfonyl]-, trimethyl ester
 (6CI, 7CI) (CA INDEX NAME)



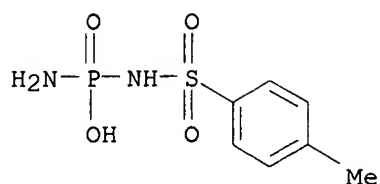
RN 91114-21-5 HCAPLUS

CN Phosphorodiamidic acid, [(p-chlorophenyl)sulfonyl]- (7CI) (CA INDEX NAME)

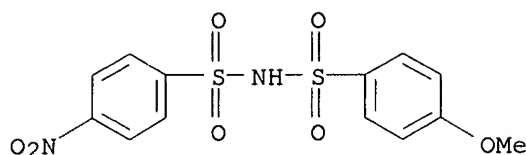


RN 92303-41-8 HCAPLUS

CN Phosphorodiamidic acid, (p-tolylsulfonyl)- (7CI) (CA INDEX NAME)



RN 96433-16-8 HCAPLUS
 CN Dibenzenesulfonamide, 4-methoxy-4'-nitro- (7CI) (CA INDEX NAME)



CC 35 (Noncondensed Aromatic Compounds)
 IT 70-55-3, p-Toluenesulfonamide 98-64-6, Benzenesulfonamide,
 p-chloro- 1129-26-6, Benzenesulfonamide, p-methoxy- 6250-31-3,
 Sulfoximine, S-amino-S-phenyl-N-(phenylsulfonyl)- **89711-96-6**
 , Phosphorodiamidic acid, (phenylsulfonyl)- **90090-66-7**,
 Phosphoramidic acid, [(p-nitrophenyl)sulfonyl]-, dimethyl ester
90648-11-6, Phosphorimidic acid, [(p-nitrophenyl)sulfonyl]-,
 trimethyl ester **91114-21-5**, Phosphorodiamidic acid,
 [(p-chlorophenyl)sulfonyl]- **92303-41-8**, Phosphorodiamidic
 acid, (p-tolylsulfonyl)- 93456-58-7, Benzenesulfonimidoyl
 chloride, p-chloro-N-[(p-chlorophenyl)sulfonyl]- 94892-50-9,
 Sulfoximine, S-amino-S-p-tolyl-N-(p-tolylsulfonyl)- 95194-84-6,
 Benzenesulfonimidoyl chloride, N-[(p-nitrophenyl)sulfonyl]-
 95197-06-1, Benzenesulfonimidoyl chloride, p-chloro-N-[(p-
 nitrophenyl)sulfonyl]- 95468-16-9, Dibenzenesulfonamide,
 4-chloro-4'-nitro- 95980-81-7, Ethylamine, N-methyl-, O-methyl
 O-2,4,5-trichlorophenyl phosphorothioate **96433-16-8**,
 Dibenzenesulfonamide, 4-methoxy-4'-nitro- 96434-82-1, Sulfoximine,
 S-amino-S-(p-chlorophenyl)-N-[(p-chlorophenyl)sulfonyl]-
 96486-86-1, Benzenesulfonimidoyl chloride, p-methoxy-N-[(p-
 nitrophenyl)sulfonyl]- 96486-87-2, p-Toluenesulfonimidoyl
 chloride, N-[(p-nitrophenyl)sulfonyl]- 96651-16-0, Sulfoximine,
 S-amino-S-(p-methoxyphenyl)-N-[(p-methoxyphenyl)sulfonyl]-
 (preparation of)

=>